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SOVIET SCIENTIFIC AND ENGINEERING PERSONNEL

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## SOVIET SCIENTIFIC AND ENGINEERING PERSONNEL

Foreword

This report consists of complete translations of selected biographic-type articles on Soviet scientific and engineering personnel. This series is published as an aid to U. S. Government research.

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### The 60th Birthday of Aleksandr Nikolayevich Formozov

On 18 March 1959 the Academic Council of the Institute of Geography of the Academy of Sciences USSR had a celebration in connection with the 60th birthday of Professor Aleksandr Nikolayevich Formozov. The occasion also marked the 35th anniversary of his scientific and pedagogical activity. Professor Formozov, a doctor of biological sciences, is an outstanding scientist, teacher, and popularizer of science. He is also chief of the division of biogeography of the Institute of Geography of the Academy of Sciences USSR.

After an introduction by academician I. P. Gerasimov who delivered a report on "A. N. Formozov, zoologist, ecologist, and biogeographer," Professor V. G. Geptner took the floor. The celebrant's activities in the popularization of science were characterized by Professor E. M. Murzayev. A. N. Formozov then reported on the utilization of observations on the distribution, number, and behavior of birds as indices of natural phenomena. The celebrant was greeted by representatives of various scientific research institutes of the Acad Sci USSR, and the Academy of Medical Sciences USSR, as well as by representatives of departmental institutes of, Moscow State University, and other higher educational institutions. He also received greetings from scientific and naturalist societies, editors of journals, and others. He received approximately 150 congratulatory telegrams from the staffs of scientific and industrial organizations and from numerous students.

A. N. Formozov was born 14 February 1899 in Nizhniy Novgorod in the family of a public teacher. In 1917, after graduating from the gymnasium, he entered the Polytechnic Institute, but the civil war interrupted his studies. From 1918 through 1920, Aleksandr Nikolayevich served in engineering units which were engaged in combat on the southern front. After demobilization, he returned to his home city. But his long-established and constantly expanding interest in natural science impelled him to leave the Polytechnic Institute and to transfer to the biological faculty of Nizhniy Novgorod University. In 1922, the faculty was closed and A. N. Formozov was transferred to the biological division of the physico-mathematical faculty of Moscow University. There he completed his education and for many years engaged in scientific and teaching activities. In 1928 he finished his graduate studies and successfully defended a report on the mammals of Northern Mongolia, which, in addition to new fauna data, also contained numerous



ecological-geographic generalizations. In 1929, Aleksandr Nikolayevich was invited to Leningrad to teach a course on zoogeography in the Institute of Applied Ecology and Phytopathology. But, by 1930 he had already returned to the biological faculty of Moscow University. There he developed a course on the biology of mammals, which, for many years, exerted a great influence on the formation of the Moscow school of ecologists. During these years he also organized and directed both the chair of biology and domestic animals in the Institute of Fur-bearing Animal Husbandry and Hunting Economy and the sector for the study of wild domestic birds in the Scientific Research Institute of the Bird Industry. In 1944, A. N. Formozov organized a division of biogeography in the Institute of Geography of the Academy of Sciences USSR; at present, he is engaged in directing this division.

Aleksandr Nikolayevich is widely known, as a zoogeographer and ecologist, among Soviet scientists; but his reputation has also spread far beyond the borders of our country. He is also renowned among the practical workers in the forestry, hunting, agriculture, and public health fields. His wide-spread popularity is due, in the first place, to the fact that every aspect of his research activity is closely connected with the practical requirements of life and with the needs of the national economy.

As a scientist-naturalist, Aleksandr Nikolayevich's work brings him into constant contact with nature; he has a deep affection for nature, and, as a naturalist, he is a very accurate observer. His eyes are those of a pathfinder and an artist and they make it possible for him to see what is frequently overlooked by other researchers. In the course of his expeditions, he has often worked in the most diverse regions of our country: on Barents Sea islands; in the tundras of Kola Peninsula and Yamala; in the tayga of European Soviet Union, Transbaykal and the Far East; in the forests of Gor'kovskaya and Kostromskaya oblasts and the Moscow area; in the wide greenwoods of Voronezhskaya Oblast, and Mordovskaya ASSR; in the forest steppes of the Ukraine and Western Siberia; in the steppes and semi-desert areas along the Don and Volga, and in the Urak; in northern and central Kazakhstan; in the deserts of Karakum and Kyzylkum; in the deltas of the Volga and Syr-Dar'ya; and in the mountains of the Caucasus, Kazakhstan, and Kirghiziya. His investigations have extended beyond the boundaries of the USSR and have encompassed the northern part of Mongolia. His numerous expeditions and station operations, as well as his excellent knowledge of the literature, have served to enhance

his erudition in both the geography and ecology of animals.

Aleksandr Nikolayevich's scientific interests have been unusually wide in scope; he is the author of approximately 190 scientific and scientific-popular works. For this reason, it is possible here to recall only several, basic directions of his activity; his work has exerted a particularly great influence on the development of Soviet ecology and biogeography. Those of his works which deal with the dynamics of the total number of vertebrate animals occupy a special place in this field. His book "Variations in the Number of Domestic Animals," (1935), which is endowed in the wealth of original data, directed the attention of scientific and practical workers to this most important problem and led to a large number of additional investigations. On the basis of a study of the ecology of individual types of animals, it was possible for him to establish clear relationships between movement of variations in the number of their livestock and the effect of various biological and geographic factors. This opened paths for predicting possible increases and decreases in the number of useful and harmful types and for making the corresponding forecasts. In 1932, A. N. Formozov made the first experimental forecast of the "yield" of squirrels, foxes, and polar foxes, and it has since been borne out to a considerable extent. Furthermore, the compilation of commercial forecasts which became one of the basic problems for the All-Union Scientific Research Institute of Hunting, is at present based on an extensive network of correspondents; the celebrant had fought for the establishment of this unique "yield service."

Aleksandr Nikolayevich has directed his attention to the study of the ecological role of individual geographic factors of the medium, including the state of the snow cover, the height of floods in rivers, variations in the water level of contained lakes, yield of seeds in conifers, etc. He has clarified both the regularities of the nonperiodic migrations which occur under the influence of elemental changes of the medium and the causes of the pulsations in the boundaries of the areal of some types of animals. In particular, he has made a thorough study of the significance of the snow cover as an ecological factor of the medium. The results of these investigations are presented in a separate monograph. In addition, the series of investigations includes works dealing with the problem of the formation and classification of biological, living forms of those animals which are characterized by a complex of morphological and ecological adaptations to the concrete conditions of the geographic medium. These observations are

presented most fully in a report on the "Biological Forms of Animals in Arid and Semiarid Regions of Central Asia," which he delivered at the 18th International Geographic Congress in Brazil.

The first of Soviet zoogeographers, A. N. Formozov has directed serious attention to the effects exerted on the animal world by different forms of the economic activity of man (animal slaughter, plowing of virgin soils, etc.). The investigation of these problems is of primary significance for the development of biological bases for the conservation of nature, for agricultural engineering measures to combating agricultural pests, for the organization of the forest and hunting economies, etc. Of equal interest is the work of Aleksandr Nikolayevich and his co-workers dealing with the study of the effect of ground vertebrates, and particularly of rodents, on vegetation and on soil covers.

A special cycle of ecological zoogeography comprises the outlines of the fauna (Dagestan, Northern Mongolia, and others) and animal world of various territories (Gor'kovskaya Oblast, Moscow area, Karakum, Kazakhstan, Central Asia, etc.). These outlines constitute examples of a combination of the geographic and ecological methods of investigation. They are all permeated with the idea of the unity of the animal population and the geographic medium; this principle appears in the clear timing of the seasonal rhythms, in the peculiarities of the behavior and morphological adaptations of animals, as well as in their effect on the landscape. In addition, various works deal with the study of the historical factors which determine both the contemporary state of the fauna of certain territories and the areas of individual types. These works include investigations of the fauna of the towns of Privetluzh'ye, the extinction of steppe rodents at the northern boundaries of their area, and the propagation of dormice in connection with the spread of broadleaved tree species which remain from the tertiary period. The papers dealing with the problem of the use of the method of quantitative evaluations in zoogeography as well as with problems in the field of applied zoology are of great significance. A. N. Formozov has represented Soviet science abroad on two occasions: in 1956 he participated in the work of the 18th International Geographic Congress and made two prolonged excursions to Brazil; in 1958, he read a report at the 12th International Ornithological Congress in Helsinki.

As a pedagog, Aleksandr Nikolayevich has created an extensive following. It is composed of former students of Moscow University, where he taught for 27 years, and it also

includes his graduate students as well as numerous workers of scientific practical organizations: game reservations, antiplague and sanitary-epidemic stations, and hunting organizations. Yet others have been trained by means of his printed works and request his advice and consultation.

Aleksandr Nikolayevich has devoted much of his time to the popularization of science. His scientific mind, his experience as a naturalist, and his artistic talents have made it possible for him to produce works which are read with enthusiasm by every age group. His "Companion of the Pathfinder" has appeared in 10 editions in the USSR and has been translated into several foreign languages.

A. N. Formozov has conducted widescale organizational work. He has been a participant in, and organizer of, various meetings and conferences on problems of biogeography, applied zoology, and the conservation of nature; he has compiled and edited various collections, as well as such works as "Data on Biogeography," "Methods of Considering the Number and Geographic Distribution of Ground Vertebrates," "Data on Rodents," and others; he is a member of various academic councils and editorial boards. In addition, he is an active worker in the All-Union Society for the Dissemination of Political and Scientific Knowledge; he delivers lectures and reports on the radio and at meetings of hunting societies, tourist societies, and student and scholastic naturalist circles.

Aleksandr Nikolayevich was awarded the order of the Red Banner and the medal "For Valiant Labor During the Great Patriotic War" for his scientific and pedagogic activity. At the present time, the celebrant is full of energy and he is making plans for new investigations. Those who attended wished him many years of health and further creative progress.

Yu. A. Isakov



The 60th Birthday and 35th Anniversary of Scientific  
Activities of Semen Grigor'yevich Genes

It is the 60th birthday of the distinguished scientist, professor, and doctor of medical sciences, Semen Grigor'yevich Genes, as well as the 35th anniversary of his scientific, pedagogic, and public activity.

S. G. Genes was born in 1898. In 1918, he entered the medical faculty of Khar'kov University. From 1919 through 1921, he served in the Red Army. In 1925, he graduated from Khar'kov Medical Institute. After graduating from the Institute, S. G. Genes became a graduate student in the chair of pathophysiology. In 1929 he became an assistant of the chair of pathophysiology, and in 1931 he became a docent of the chair. From 1932 through 1938, he was a professor, in charge of the chair of pathophysiology in the Sanitary-Hygienic Institute. Thereafter, he held the same position in the sanitary-hygienic faculty of Khar'kov Medical Institute. From 1938 through 1949, he worked in Stalinsk Medical Institute. In 1940, S. G. Genes became head of the chair of endocrinology in the Ukrainian Institute for the Advanced Training of Physicians. Then, he became head of the chair of pathophysiology at the Institute, and, at the present time, he is in charge of the chairs of endocrinology and of pathophysiology. At the same time, since 1932, S. G. Genes has also headed the division of pathophysiology in the Ukrainian Institute of Experimental Endocrinology.

He has made a great contribution to the study of sugar diabetes.

On the basis of a profound and thorough investigation of the metabolism of different organs and tissues, both in the absence and in the presence of insulin, S. G. Genes developed a new theory on the pathogenesis of sugar diabetes and a theory on the action of insulin. These theories served as the basis for his proposed method of treatment of patients suffering from sugar diabetes and requiring insulin therapy and normal diet. S. G. Genes's monograph on sugar diabetes appeared in four editions. He has also published several monographs on the mechanism of the action of hydrolysates, on the use of preparations of liver and of the pylorus of the stomach for the treatment of pernicious anemia, and on the interrelationship of the nervous system and internal secretions. During the past 10 years, S. G. Genes and his co-workers have worked on problems dealing with the mechanism of the action of hormones, the treatment of sugar diabetes during pregnancy and lactation, and treatment with sex

hormones and their synthetic analogs.

S. G. Genes has been successful in training cadres of scientific workers. Under his leadership, 20 doctoral and candidate dissertations were prepared and defended. At the same time, he has written approximately 200 scientific works.

In addition to his fruitful scientific-pedagogic activity, S. G. Genes has also taken an active part in public and political life. S. G. Genes has been a member of the Communist Party of the Soviet Union since 1919.

For several years, S. G. Genes headed the Khar'kov Society of Pathologists and the Khar'kov Society of Endocrinologists; he is an active member of the board of the Ukrainian Society of Physiologists, Biochemists, and Pharmacologists, and of the All-Union and Ukrainian Society of Pathophysiologicals. S. G. Genes has also taken an active part in the work of medical publications.

We wish S. G. Genes further fruitful scientific, pedagogic, and public activity.

Editorial Board

Professor Petr Ionovich Il'inskiy

(On his 60th birthday and the 35th anniversary of his scientific-pedagogical and medical-public activity)

P. I. Il'inskiy was born in 1898 in Kirov in the family of a salaried employe. In 1924 he graduated from the medical faculty of St. Petersburg University and, in 1953, from the evening institute of Marxism-Leninism in Leningrad.

In 1936 P. I. Il'inskiy was granted the academic degree of Candidate of medical sciences without defense of dissertation and the academic title of senior scientific associate and docent, in 1940 the degree of doctor of medical sciences, and in 1944 the title of professor.

P. I. Il'inskiy has written a considerable number of works on vital and original problems of pediatrics. His doctoral dissertation "Malaria in Children" (1938) is a scientific work in which problems of malariology in children are solved. Twelve candidate's dissertations were written and defended under his guidance.

P. I. Il'inskiy is an excellent lecturer, experienced pedagog-methodist, and thoughtful clinicist. He has trained more than 50 clinical internes, 20 assistants, five docents, and four acting heads of chairs of children's diseases.

For a number of years he served as responsible secretary of the journals "Voprosy Okhrany Matershinstva i Detstva" (Problems of the Protection of Mothers and Children) (Leningrad) and "Pediatriya" (Pediatrics) (Moscow). P. I. Il'inskiy participated in the civil war. He served more than 20 years in the Soviet Army and Navy. In 1941 he was shell-shocked in the blockading of Leningrad. He was awarded two orders and five medals.

At the present time Petr Ionovich heads the chair of children's diseases of Kuybyshev Medical Institute. P. I. Il'inskiy is a scientist of great erudition and a highly cultured person.

We wish our dear teacher good health and continued creative activity.

Group of students

## The 60th Birthday of Professor Ignatiy Anatol'yevich Lopotko

Sixty years have passed since the birth of Professor I. A. Lopotko, one of the greatest workers in Soviet otorhinolaryngology. Professor Lopotko is the chairman of the All-Union Society of Otorhinolaryngologists, and the director of the Leningrad Eye, Throat, Nose, and Speech, Scientific Research Institute.

Ignatiy Anatol'yevich Lopotko was born 27 June 1899. In May 1918, while a student in the 8th grade of the Vyazma Male Gymnasium, he joined the ranks of the Communist Party and became engaged in active public and political work.

I. A. Lopotko was an active participant in the civil war.

In 1926, I. A. Lopotko graduated from the medical faculty of Belorussian University and was accepted as a graduate student in the chair of surgery (director -- Professor S. M. Rubashov) of Belorussian Medical Institute in Minsk. From 1927 through 1929, he worked as an interne in the clinic of ear, nose, and throat diseases. In 1929 he became an assistant at the clinic and in 1931, a senior assistant. In 1932 he was confirmed in the position of docent and shortly thereafter he became director of the clinic of diseases of the ear, nose, and throat of Belorussian Medical Institute. He remained in this capacity until his departure for Leningrad in 1937.

In 1940, I. A. Lopotko defended his dissertation for the degree of doctor of medical sciences; his subject was the "Biological Action of X-rays on the Hearing Organ." In the same year, he was awarded the academic degree of doctor of medical sciences and the title of professor.

I. A. Lopotko has made great contributions to Soviet public health in the field of the organization of Belorussian University and, in particular, in the organization of its medical and research faculties.

In 1937, I. A. Lopotko became director of the Leningrad Ear, Nose, Throat, and Speech, Scientific Research Institute; he has remained in that capacity up to the present time. During this period, the Institute developed into an effective scientific research organization.

Ignatiy Anatol'yevich's work as director of the Leningrad Ear, Throat, Nose, and Speech Scientific Research Institute and as the chief otorhinolaryngologist of Leningrad, has been of great scientific and scientific-organizational value. I. A. Lopotko's work in the Institute has been of great value in the training and development of cadres of otorhinolaryngologists, in research concerning the most



important problems of the prophylaxis of otorhinolaryngological diseases, and in the organization and expansion of otorhinolaryngological services for the people.

During the 22 years of I. A. Lopotko's leadership his co-workers at the Institute have completed more than 1200 scientific works, developed more than 80 different types of apparatus, instruments, and graphic instructional textbooks. Moreover, more than 5,000 scientific co-workers, physicians, and intermediate medical personnel have improved their qualifications in the Institute.

I. A. Lopotko is a talented experimenter and one of the great otorhinolaryngological specialists. He has written approximately 50 scientific works; those of essential significance include investigations dealing with the following subjects: the biological action of radiant energy on otorhinolaryngological organs, the X ray diagnosis of cancer and scleroma of the larynx, the X ray therapy of otorhinolaryngological diseases; otorhinolaryngological traumatism, occupational pathology, tonsillar problems, scleroma; and problems of combating hearing and speech disorders.

I. A. Lopotko's work on the problem of the biological action of radiant energy on otorhinolaryngological organs, was the first to cast light on this subject. He determined the dosimetry of the roentgen radiation of otorhinolaryngological organs; he also developed a procedure for the use of X rays in otorhinolaryngology, and utilized this powerful force for diagnostic and therapeutic purposes in various otorhinolaryngological diseases.

His work, the "Problem of Scleroma," casts light on the current state of the study of scleroma. This work, which presents the author's views on the problem of scleroma, served as the theoretical basis for all his further work on the subject. He was the first to establish that the Tyushka gland could be affected by the scleroma process. His works on scleroma show that I. A. Lopotko did not remain within the confines of his specialty.

His work, the "Fractures of the Base of the Skull and Pyramid of the Temporal Bone in the Etiology of Deafness," is of considerable interest. It was begun during the period of the Great Patriotic War under the conditions that prevailed in the defense of Leningrad. The registration of the currents of the cochlea and the study of the picture of the morphological changes of the auditory organs were utilized as an objective method for the investigation of the auditory function. This work explains the protective role of the retardation of the central nervous system, which takes place during trauma, and which subsequently facilitates its

functional restoration. The data obtained by I. A. Lopotko are in complete accord with the conceptions encountered in the teaching of I. P. Pavlov.

I. A. Lopotko's works on the auditory function constitute a very valuable contribution to the labyrinthology.

I. A. Lopotko has devoted much attention to the problem of combating street, industrial, and household noise, to this end he has made appearances on the radio, utilized the industrial press, and organized scientific-popular conferences in factories.

I. A. Lopotko, jointly with O. Yu. Lakotkina, has worked on the problem of the creation of a model of experimental tonsillar pathology, a problem difficult to solve and important in theory and practice.

Of special interest are the resulting data of clinically and roentgenologically expressed affections of the joints of animals after sensibilization, hormone actions, and prolonged periodic infections through the tonsil by cultures of the betahemolytic streptococcus. These data confirm the etiopathogenetic relationship between tonsillar pathology and rheumatism.

In his work, "Subcutaneous Emphysema as a Complication in the Removal of Foreign Bodies from the Esophagus," I. A. Lopotko showed that subcutaneous emphysema, which indicates the existence of a perforation of the esophagus, is not always an absolute criterion for surgery; only the threat of exacerbation of the patient's symptoms and worsening of his condition should serve as a basis for the corresponding operation.

The entire scientific activity of I. A. Lopotko is characterized by a constant striving for a connection between clinical and theoretical problems, i. e., by the physiological orientation of his investigations.

He had devoted a great deal of attention to the prophylaxis of otorhinolaryngological diseases, as well as to the popularization of scientific achievements, and their adaptation to the work of the therapeutic-prophylactic organizations.

He has published the following popular brochures: "Sanitary Lumen in Otorhinolaryngology," "Tuberculosis of the Larynx," "Nose Bleeds and their Prophylaxis," "Voice Hygiene." He has also published various methodological instructions, including instructions on emergency aid in otorhinolaryngological diseases.

During the period of the Great Patriotic War, the institute headed by I. A. Lopotko served both the wounded from the front and the urban population.

The extensive experience accumulated by the staff of the Institute in treating wounded men with injuries of the ear; nose, and throat, as well as those with speech disorders, was reflected in the numerous articles which were printed in various journals and in collections of works of this Institute. In addition I. A. Lopotko organized various conferences that dealt with otorhinolaryngo-traumatism, alimentary dystrophism and avitaminoses, and contusion disorders of voice and speech.

I. A. Lopotko's public activity is multi-faceted. In 1956, the All-Russian Conference of Otorhinolaryngologists elected him chairman of the All-Russian Scientific Society of Otorhinolaryngologists. In addition, he is the deputy chairman of the All-Union Scientific Society of Otorhinolaryngologists, a member of the Academic Council of the Ministry of Health RSFSR, the chief otorhinolaryngologist of Leningrad, a member of the editorial council of the journal "Vestnik otorinolaringologii" (Herald of Otorhinolaryngology), and one of the co-editors of the "Otorhinolaryngology" Section of the Bol'shoi Medical Encyclopedia. I. A. Lopotko also heads various commissions on different problems of public health.

I. A. Lopotko made significant contributions to the organization of the 5th All-Union Congress of Otorhinolaryngologists in Leningrad. At the present time, he is a member of the editorial commission which is responsible for the publication of the works of the 5th All-Union Congress of Otorhinolaryngologists.

I. A. Lopotko has more than once been elected a deputy of the Minsk and Leningrad city soviets of deputies workers'; he has also been a member of the Frunze Rayon of Leningrad district committee of the Communist Party of the Soviet Union.

State holds I. A. Lopotko in high esteem for his fruitful activities. He has been awarded the orders of the Labor Red Banner, the "Badge of Honor," and the "Red Star," as well as three medals and the emblem "To an Excellent Worker in Public Health."

We wish Ignatiy Anatol'yevich health and strength for further fruitful work for the benefit of science and Soviet public health.

Member of the AMN USSR, Prof V. I. Voyachek  
Corresponding-member AMN USSR, Prof V. F.

Undrits

Honored Scientist RSFSR, Prof A. A. K'yandskiy  
Doctor of Medical Sciences N. P. Kniga

### The 60th Birthday of Dmitriy Yevgen'yevich Melekhov

Dmitriy Yevgen'yevich Melekhov, chief of the division of marginal neuropsychiatric diseases and medical-labor expertise of the State Scientific Research Institute of Psychiatry of the Ministry of Health RSFSR, reached his 60th birthday in February 1959.

In 1925, immediately after graduating from the medical faculty of the First Moscow University, Dmitriy Yevgen'yevich began work in the psychiatric clinic under the direction of P. B. Gainushkin and T. A. Geyyer.

In 1930, after finishing his term as an interne in the clinic of P. B. Gainushkin, he began work in the Institute of Neuropsychiatric Prophylaxis of the Ministry of Health RSFSR. He also done scientific research work in the Institute of Psychiatry of the Ministry of Health RSFSR, and, at present, he is still engaged in this work. At the same time, he has served as a consultant to various practical medical and expert organizations. In 1932, D. Ye. Melekhov began work in the Central Institute of Expertise of Work Fitness and the Organization of Labor of Invalids of the Ministry of Social Security RSFSR. There, he assisted T. A. Geyyer in the organization of the psychiatric division of the Institute. Since 1948 he has been in charge of this division -- the leading scientific-methodological center on medical-labor expertise in psychic diseases. The work performed in these two institutes served to create a synthesis of clinic and expertise. It was this synthesis which enabled D. Ye. Melekhov to deal with both the general clinical problems and the basic problems of Soviet psychiatric medical-labor expertise.

D. Ye. Melekhov taught in the chairs of psychiatry and expertise of work fitness at the Central Institute for the Advanced Training of Physicians. During 1937-1939, he was head of the chair of psychiatry of Voronezh Medical Institute.

At the very inception of his scientific and practical activity, D. Ye. Melekhov began to devote special attention to the study of the functional state of the patient, as well as to the nature of the course of the morbid process, and its stages. Throughout his career, D. Ye. Melekhov has continued to investigate the clinic of schizophrenia; he has set himself the task of making an early diagnosis of the different types of the disease, its prognosis, and its compensation. His work dealing with the classification of schizophrenic reactions and their differential diagnosis from the initial stages of schizophrenia is part of this plan.

He has also given considerable attention to the development of occupational therapy in psychic diseases and to an analysis of its clinical effectiveness.

Dmitriy Yevgenevich is deeply involved in the study of the clinic of traumatic diseases, which he began during the years of the Great Patriotic War. His interest in this problem has never slackened and has continued up to the present time. D. Ye. Melekhov has studied the indirect effects of cranio-cerebral traumas, and has combined his clinical investigations and observations with pathophysiological investigations of traumatic diseases. Several works of great theoretical and practical value have resulted from these investigations. These works received wide repute both in our country and abroad. D. Ye. Melekhov has written more than 70 works, including monographs and individual sections of textbooks dealing with important problems of psychiatry.

During 1951-1955, D. Ye. Melekhov directed the work of the State Scientific Research Institute of Psychiatry of the Ministry of Health RSFSR; as director of the Institute, he guided the staff in their efforts to reorganize the work of the Institute on the basis of the physiological teaching of I. P. Pavlov.

D. Ye. Melekhov is an exemplary Soviet physician-humanitarian, and scientist. Moreover, as an organizer, he is able to apply his broad clinical experience to the requirements and needs of practice. Dmitriy Yevgenevich's 60th birthday finds him in the full flowering of his creative efforts. We wish him health and further progress in his many activities.

### The 60th Birthday of Boris Ivanovich Migunov

The current year marks the 60th birthday of Professor Boris Ivanovich Migunov. In 1924, after graduating from the faculty of the First Moscow State University, B. I. Migunov was accepted as a graduate student in the chair of pathological anatomy, which was headed by A. I. Abrikosov. At the same time, he worked as a prosector in the State Scientific Research Institute for the Control of Sera and Vaccines imeni L. A. Tarasevich. In 1931, B. I. Migunov became an assistant of the chair of pathological anatomy of the Central Institute for the Advanced Training of Physicians; in 1936 he became a candidate of medical sciences, and in 1941 he became a docent in the same chair.

During 1939-1941, Boris Ivanovich was in charge of the pathologico-anatomical division of the Hospital imeni Botkin. From October 1941 to 1948, he held the position of chief pathologico-anatomist of the Ministry of Health USSR; and he remained in that capacity until 1956. During this period, he performed considerable work in different divisions of the pathologico-anatomical service: under his leadership, the Ministry of Health USSR issued Order No 4 of 3 January 1932. This order reflected all the basic divisions of the pathologico-anatomical service. At the All-Union conferences of pathologico-anatomists, B. I. Migunov did much to clarify the problems of the organization of the pathologico-anatomical service. In 1946, after defending his doctoral dissertation, B. I. Migunov was granted the title of professor and was appointed to the post of chief of the pathologico-anatomical division of the Moskovskaya Oblast Scientific Research Clinical Institute, and was in charge of pathological anatomy in Moscow Medical Institute of the Ministry of Health RSPSR. Since 1951, he has worked in Moscow Stomatological Institute. The most important of B. I. Migunov's scientific works deal with the experimental reproduction of local hyperergic reactions in different organs, with experimental endocarditis, and with the emphysema of the lungs under military conditions. He has also written various works dealing with the organization of the pathologico-anatomical service. His recent works have dealt with problems of the pathology of the anatomy of the mouth, and with maxillo-dental apparatus.

B. I. Migunov's students have found positions in medical institutes as assistants and docents. Various dissertations have been completed and successfully defended under the direction of B. I. Migunov.

For many years, B. I. Migunov has been engaged in



important public work; he is a member of the boards of the Moscow and All-Union Societies of Pathologico-anatomists, a member of the editorial staff of the journal "Sovetskaya meditsina" (Soviet Medicine), and a member of the editorial council of "Arkhiv patologii."

B. I. Migunov has received many state awards: the Order of Lenin, the Order of the Red Star, the Badge of Excellent Worker in Public Health, and various medals.

The boards of the Moscow and All-Union Societies of Pathologico-anatomists and the editors of "Arkhiv patologii" hold B. I. Migunov's scientific and public work in high regard; they send him sincere greetings and wish him many years of life and health.

### The 60th Birthday of Vadim Vladimirovich Mikheyev

September 1959 marked the 60th birthday of professor-neuropathologist, Vadim Vladimirovich Mikheyev. It was also the 35th anniversary of his medical, pedagogic, scientific, and public activity.

After graduating from the medical faculty of Moscow University in 1924, Vadim Vladimirovich worked for 12 years as an interne, assistant, and docent. Under the direct guidance of the greatest Soviet neuropathologists, L. O. Darshkevich, I. Yu. Tarasevich; M. B. Krol', and of the pharmacologist B. N. Mogil'nitskiy, he received his basic neurological education, with special attention given to the pathohistology of the nervous system. In 1936, Vadim Vladimirovich was appointed to the chair of nervous diseases of Arkhangel'sk Medical Institute. He organized this chair and directed it for 10 years.

During the years of the Great Patriotic War, V. V. Mikheyev did work of great value in the organization of neurological assistance in various evacuation hospitals of Arkhangel'skaya Oblast. From 1945 to the present, he has been in charge of the chair of nervous diseases and psychiatry in Moscow Medical Stomatological Institute.

Vadim Vladimirovich is the author of over 100 scientific works dealing with actual problems of neurology: traumas, tumors, and vascular affections of the brain and spinal cord; syphilitic, tubercular, rheumatic, and virus infections of the nervous system and the mid-brain-hypophysis -- artifacts and monstrosities of the spinal cord; affections of the vegetative nervous system; epilepsy; neuroses; familial-hereditary diseases; and problems of the organization of neurological aid. The following monographs occupy an important place among his works: "Neuropathology of Malignant Neoplasms" (1946), "Cerebral Rheumatism" (1949), "Stomatoneurology" (1958). A monograph on "Neurorheumatism" will soon appear in print; it will generalize the author's rich 20-years' experience on the problem of rheumatism in various other collagen diseases.

Vadim Vladimirovich is a talented pedagog. He had his start in this field as far back as 1933 as the author of a textbook on nervous diseases, which was intended for secondary medical schools; it ran to ten editions and was translated into many languages: Armenian, Ukrainian, Georgian, Bulgarian, Hungarian, Chinese and Polish. In 1954, he issued a textbook for medical institutes, which met with universal approval and which was reissued in 1958. This textbook is used by students of higher medical institutions.



The state holds V. V. Mikheyev's work in high esteem; he has been awarded the Order of Lenin and various medals.

We wish Vadim Vladimirovich good health and many years of fruitful work for the benefit of neurology in our country.

### The 60th Birthday of G. Kh. Molotkovs'kyi

26 May 1959 marked the sixtieth birthday of the eminent botanist-physiologist Georgiy Krisanfovich Molotkovs'kyi.

A great specialist in the problems of the polarity of plants, author of numerous studies of the physiology of interaction with grafted components, G. Kh. Molotkovs'kyi started his career in the Kamenets-Podol'skiy Botanical Garden by investigating the water regime of arboraceous plants under natural conditions. He explored the accumulation and transport of plastic substances, the osmotic properties of cellular fluid, resistance and conductivity of tissues, and state of the stomata. It was established that the regulation of the stomatic apparatus and the ventilation factor (Molotkovs'kyi, 1934) characterize the regulatory activity of the plants during the evaporation period and of the related changes in the physiological state of leaves.

Valuable data were obtained by G. Kh. Molotkovs'kyi while investigating the dynamics and correlation function of the relationship between the growth of organs and formation of crop yield in agricultural plants and the changes in ecological factors. He also carried out geobotanical studies in Tsybuliv'sk Forest near Kamenets-Podol'skiy (Molotkovs'kyi, 1936). A number of investigations were carried out by means of original methods (auxanometer, recording chambers, celluloid eyepiece-micrometers, porometric chambers, a special device for measuring transpiration under natural conditions, etc.).

As of 1933 G. Kh. Molotkovs'kyi headed the chair of plant physiology and microbiology at Zhitomir Agricultural Institute and acted as Superintendent of the Zhitomir Botanical Garden.

In 1937 G. Kh. Molotkovs'kyi was the first to use, in geobotanical investigations, a solution of celluloid for fixating the stratification of the root systems of herbaceous plant groups in the upper layers of the soil. Subsequently he passed on to other soil levels and developed a procedure for taking samples by means of celluloid over the entire depth of a soil cross section, which has won high recognition among soil scientists (preservation of structure of soil in its natural form, high clarity of structural features, and composition of the soil).

The researches of G. Kh. Molotkovs'kyi in using celluloid soil chambers for investigating microorganisms under natural conditions were positively assessed by M.G. Kholodnyy,

who pointed to their value as an important modification of the culture plate method.

The closer rapprochement between botany and the practical needs of agriculture characterizing the development of botany in the prewar years and especially in the years of the Great War for the Homeland, was also reflected in the labors of G. Kh. Molotkovs'kyy. To that period belong his investigations of the effect of decapitation on the growth and development of the Russian blow-ball Taraxacum kok-saghyz, Rodin / and "krim-saghiz" as a valuable method for accumulating rubber in the roots and improving its quality, the cutting of potato leaves, and the means of exterminating in the soil the incitants of potato canker. On the basis of these investigations G. Kh. Molotkovs'kyy had elaborated the physiological foundations of controlling the development of root rubber plants, potatoes, ramosospiciform winter rye, and changes in the nature of plants through grafting.

Approximately 20,000 various combinations of graftings were applied to representatives of the families of cereals, cucurbitae (loofahs, hairy cucumber), Connabinaeae (hop, hemp), Linaceae (cultivated and perennial flaxes), Labiatae (the basil and Nanking Perillas), Atriplex, Compositae, and especially Solanaceae (potatoes, datura, Scopolia, Physalis, -- perennial and annual; tomatoes, and Solanales -- black and bettersweet nightshades).

These experiments have revealed the peculiarities of certain physiological processes in the investigated plant species, and they have yielded a number of valuable vegetative hybrids of the potato, tomato, hemp, and sunflower. The vegetative hybrids of the potato displayed, under the influence of grafting, an important trait -- immunity to the potato canker.

Interesting data have been obtained concerning the longevity of annual plants when grafted with perennials. For instance, black nightshade had remained alive for over three years as a scion on bittersweet nightshade. Another scion -- perennial flax (L. harbonense) served to prolong for three or four months the lifespan of the stock -- cultivated flax.

Resistance to frost was increased in the cucumber and in the loofah upon their vegetative rapprochement grafting with the hairy cucumber, and in the potato -- under the effect of *Physalis Franchetti*. In his graftings G. Kh. Molotkovs'kyy employed, in addition to the commonly known methods of vegetative rapprochement, his own methods as well --

into nodal cleavage in cereals, en grafting internodes and flowers in the Solanales, and hybridization by plant extracts.

In his labors in ecological physiology and microbiology G. Kh. Molotkovs'kyy has taken cognizance of the creative activities of such great and many-sided representatives of plant physiology and morphology as M. G. Kholodnyy, M. P. Krenke, and others. While G. Kh. Molotkovs'kyy has remained open to the influence of these scientists, his own achievements have remained distinctly independent and original.

In 1939 G. Kh. Molotkovs'kyy commenced his long-range studies of the problem of the polarity of plants, which have made his name a by-word. At the time, no (Russian or Soviet) scientific school of thought was particularly concerned with this matter. Regarding this matter, the classical handbook on plant physiology written by S. P. Kostichev (Part II, GIZ Press, Moscow-Leningrad, 1933, page 277) states: "Correlation can be also construed as pertaining to anything understood under the concepts of polarity and... completely not subject to any examination." The investigations of M. G. Kholodnyy in the problems of polarity were concerned mainly with electro-physiological phenomena, while the investigations of M. P. Krenke in these problems were focused on their age and tier inhomogeneities.

G. Kh. Molotkovs'kyy became concerned with plant polarity, while investigating the processes of ontogenesis and the physiological nature of transplantations and correlative relationships between organs violated by grafting cutting, and decapitation. His long-range observations of graft components led him to considering the question of what determines the reciprocity in the relationships between physiological processes and the structural elements of the organism. During transplantation, the correlative ratios between single but mechanically split heteropolar particles are violated. Rapprochement with the new biocomponent restores these ratios, but on new qualitative foundations. As a result, any one of these possible states of these components can be observed.

(1) Intensive growth and retarded transition to fructification, i. e., rejuvenation;

(2) Retarded growth and rapid transition to the reproductive phase of development, i. e., acceleration of the aging process;

(3) State analogous to that of the ungrafted plant, i. e., absence of effect of scion on stock. As a result of 20-year persistent and systematic labors, G. Kh. Molotkovs'kyy

has obtained valuable data for an intrinsically new interpretation of the following problems:

(1) physiological nature of the processes of the aging and rejuvenation of the plant organism; (2) importance of the state of dormancy as the initial phase in plant development; (3) physiological nature of the relative reversibility of developmental processes; and (4) physiological nature of the process of the alteration in the nature of plants.

Regarding the phylogeny of the plant organism, G. Kh. Molotkovs'kyi differentiates in plant ontogenesis among the following heteropolar systems conditioning its development:

1. Growing point of stalk and its basis
2. " " " " " root
3. " " " " " leaf
4. " " " " " flower
5. " " " " " seed and fruit.

The above list of systems can be prolonged -- others also exist and operate, e. g., leaf-root, flower-root, and so on. Every mature organ joining the common cycle of the metabolism and development of the plant organism contributes thereto its own specificity, and thus conditions the transition of the organism to its next stage of development. Proceeding from the polarity of the subterranean organs and the growing point of stalk, G. Kh. Molotkovs'kyi has shed new light on the understanding and study of the role of the root in the processes of stage-by stage development.

The correlative polar relationship exists not only between the stagewise non-equivalent parts of a plant organ but also between the separate organs in the plant, which manifests itself with particular clarity in the relationships between stalk and root. On knowing the nature of these or other correlations it is possible, through active interference, to orient the process in the desired direction: for instance, to prolong the lifespan of annuals through their vegetative rapprochement with perennials. In G. Kh. Molotkovs'kyi's experiments concerning the decapitation of the roots of the Russian blow-ball, the period of dormancy had declined in South Kazakhstan, while in North Kazakhstan the root mass became enlarged. The modification of rye in the direction of obtaining ramosospiciform and perennial varieties was based on the correlative or combined variability.

G. Kh. Molotkovs'kyi devotes considerable attention to the plant metamerous as polar structures. In 1956 he established solidly the concepts of the coefficients of polarity and graduation characterizing the degree of viability

of plant organisms. An analysis of the polarity of individual metameres enabled G. Kh. Molotkovs'kyy to clarify the nature of this phenomenon in the plant as a whole. In the upper parts of the metameres are enclosed dry matter, chlorophyll and vitamins, and moreover, in these parts, the activity of enzymes and other matter is greater than at their opposite pole -- in the lower parts. In the adjacent poles of the metameres the transition from one pole to another occurs in abrupt jumps. The distinctive nature of the structure and metabolism of the opposite poles determines their polarity.

In his numerous works (over 175 publications) G. Kh. Molotkovs'kyy shed new and penetrating light on the fundamental laws of the regulation of metabolism, features of chemical and physiological correlations of organs, phenomena of physiological correlation of tissues under the influence of various factors of the ambient medium. This has served as the foundation for his formulation of the law of the polarity of plant development, which he advanced in 1953.

As an investigator G. Kh. Molotkovs'kyy is characterized by his acuity of perception, accuracy and assiduity in conducting experiments, and thoughtful treatment of details. However, he has never considered finding the proof to be an end in itself. With his gift for generalization and synthesis, he always is desirous of deducing laws from phenomena and facts, as exemplified by his work on "Reciprocal Interactions Between Organs of a Plant as the Foundations for Its Development" (1948).

An outstanding pedagogue, and a brilliant and authoritative orator, G. Kh. Molotkovs'kyy has, since 1929 been lecturing on the disciplines of botany and general biology to great numbers of students. The chairs he heads (in Kamenets-Podol'skiy and Zhitomir agricultural institutes and at Chernovtsy University) train numerous students conducting active scientific research work under his guidance.

Georgiy Khrisanfovich has won wide renown not only in student and scientific circles but also among the general public. He is well known as a brilliant advocate of Michurin's ideas.

To the esteemed birthday celebrant -- good health and many more years of creative work for the benefit of the Soviet science!

M. A. Lyubuns'kyy  
N. V. Poruts'kyy

## The 75th Birthday of Aleksandr Viktorovich Pakhomov

Seventy-five years have passed since the birth of Distinguished Physician of the RSFSR, Aleksandr Viktorovich Pakhomov.

After graduating from Petrograd University, A. V. Pakhomov served as a physician in the Red Army from 1917 through 1923. At the end of the civil war he studied phthisiology in Petrograd Tuberculosis Institute. In 1924, he organized an antitubercular at the Motovilikh Plant in Perm' and became one of the first phthisiologists in the Urals. From 1927 through 1932, A. V. Pakhomov was the chief physician of the Ivanovskaya Oblast Antitubercular Dispensary. In that capacity, he performed work which was of great value in the prophylaxis of the morbidity of tuberculosis among the textile workers of Ivanovo. In 1932, Aleksandr Viktorovich again returned to the Urals and, as an eminent phthisiologist-clinician, he headed the surgical division of Ural Tuberculosis Institute in Sverdlovsk. He contributed much energy and knowledge to the development of surgical methods for treating patients suffering from cavernous tuberculosis of the lungs.

In collaboration with physician-surgeon P. P. Vartminsk, and later with Professor A. T. Kidskiy, A. V. Pakhomov has worked on the refinement of indications in surgery; he has also devoted much attention to the treatment of suppurative pneumopleuritis.

At the present time, A. V. Pakhomov is head of the surgical division of the Sverdlovsk Municipal Antitubercular Dispensary.

A. V. Pakhomov has skilfully combined his scientific-research work with his pedagogic and public activity. He has completed and published various works dealing with indications in surgical methods of treatment and with the post-operative care of tubercular patients.

At the same time, since 1938, A. V. Pakhomov has also worked continuously as an assistant in the chair of tuberculosis of Sverdlovsk Medical Institute. He has skilfully imparted his rich experience as an organizer and clinician to the physicians and students at the Institute.

The State has high regard for A. V. Pakhomov's multifaceted activity as a physician, teacher, and public worker. A. V. Pakhomov has been awarded the Order of Badge of Honor and has been granted the honorary title of Distinguished Physician RSFSR.



Aleksandr Viktorovich's name is mentioned with great respect by his numerous students and by the inhabitants of the Urals to whom he returned both health and the capacity to work.

The Sverdlovsk Society of Physicians-phthisiologists and the populace of the city warmly greet the celebrant and wish him health and further progress.

Chairman of the Sverdlovsk  
Society of Phthisiologists

Prof I. A. Shaklein



The 60th Birthday and 40th Anniversary of Scientific  
Activities of Georgiy Aleksandrovich Rikhter

It is the 60th birthday of Professor Georgiy Aleksandrovich Rikhter and the 40th anniversary of his medical, scientific-pedagogic, and civic activity.

In February 1921, after graduating from the medical faculty of the First Moscow State University, Georgiy Aleksandrovich became a junior scientific co-worker in the chair of topographic anatomy and operative surgery of the second Moscow University. In 1922 he began his work as a surgeon in the former Staro-Yekaterinskaya Hospital. There he became interested in the problems of the surgery of the peripheral nervous system, which he was later to discuss in his doctoral dissertation. At the present time, Georgiy Aleksandrovich is considered to be one of the most competent specialists in this field of surgery.

In 1926, Georgiy Aleksandrovich became head of the chair of topographic anatomy, operative surgery, and operative gynecology in courses for the advanced training of physicians in the Moscow Public Health Division (later reorganized as the Central Institute for the Advanced Training of Physicians). In 1932, he transferred to the Fourth Moscow Medical Institute. He began his work at the Institute by teaching a parallel course of normal anatomy (the chair of Professor M. F. Ivanitskiy) at the Institute; then, he became head of the chair of topographic anatomy and operative surgery, and he remained in that capacity until 1951.

In 1951, G. A. Rikhter transferred to the Central Clinical Hospital of the Ministry of Railways, where he became the chief surgeon of railroad transport. From 1954 until the end of 1957, he worked as senior scientific co-worker in the Institute of Surgery imeni A. V. Vishnevskiy, Acad Med Sci USSR.

Since he wished to utilize his rich pedagogical experience and also to work in a clinic which dealt with a wider variety of problems, in September 1957 Georgiy Aleksandrovich transferred to Municipal Hospital No 51 of Kievskiy Rayon as a consultant and chief surgeon.

G. A. Rikhter is the author of 78 published works; these include works on clinical anatomy and embryology. He has also investigated various subjects related to the general set-up of the A. V. Vishnevskiy Clinic: "Diagnostic Significance of the Novocaine Block in Dynamic Forms of Ileus," "Treatment of Empyemas by the Method of A. V. Vishnevskiy,"

"Pain Conductors and Anesthesia," "Pain and Anesthesia in the Light of the Teachings of Pavlov," etc. More than 20 works deal with the surgery of the peripheral nervous system; he has proposed a method for nerve suture, as well as the "exprojective" method of approach to nerve stems, which came into wide use during the period of the Great Patriotic War.

The original works which were published include a proposed method for sphincteroplasty during the prolapse of the rectum, as well as a method for the removal of the stellate ganglion during thrombosis of the artery. He has developed, completed, and proposed a detailed method for the restoration of speech. He has also developed and proposed a modification of the method for restoring of the function of the shoulder joint in some forms of firearm wounds of the shoulder. Professor Rikhter's book on the "Malignant Tumors of the Urinary Bladder and their Treatment" which is to be published soon, gives his personal experience in the removal of the cancerous urinary bladder from 50 patients on the basis of a procedure developed by him.

A considerable number of scientific works, as well as candidate and doctoral dissertations, have been written under the guidance of G. A. Rikhter.

The assistants who worked in the chair headed by G. A. Rikhter subsequently became directors of chairs and clinical organizations. At this moment, various dissertations are in the process of being developed under the leadership of Georgiy Aleksandrovich.

The editorial staff of the journal "Khirurgiya" warmly greets the celebrant and wishes him health and further creative progress.

The 60th Birthday and 30th Anniversary of Scientific  
Activities of Ivan Alekseyevich Shaklein

July 1959 marked the 60th birthday of doctor of medical sciences, Professor Ivan Alekseyevich Shaklein, as well as the 30th anniversary of medical, civic, and scientific-pedagogic activity.

I. A. Shaklein, a member of the Communist Party of the Soviet Union since 1919, is the leader of antitubercular work in the Urals; he is a clinicist-phthisiologist, as well as a teacher and an outstanding civic worker.

I. A. Shaklein's career serves as clear evidence of the broad opportunities afforded the workers by the Soviet regime. I. A. Shaklein is the son of a farmer. During the years of the civil war, he served as volunteer in the Red Army and after demobilization, entered the workers' faculty in Perm'. In 1929, he graduated from the medical faculty of Perm' University and remained there as an interne in the clinic of internal diseases. Subsequently he completed graduate studies at the Central Institute of Tuberculosis in Moscow.

Professor Shaklein received his training in therapy and phthisiology. Since 1932, he has devoted his efforts to the control of tuberculosis in the Urals. At first he occupied the position of deputy director of the Sverdlovsk Scientific Research Institute of Tuberculosis. Since 1937, he has been the director of the Institute.

I. A. Shaklein's great contributions in the field of scientific investigation are related to his work in silico-tuberculosis and collapsotherapy. His studies of the morbidity of miners with pneumoconioses date back to the first years after the organization of the Sverdlovsk Institute of Tuberculosis, when he developed prophylactic measures against this disease; he also studied the clinic and effectiveness of artificial pneumothorax, and, in particular of pneumoperitoneum. I. A. Shaklein formulated his investigations of pneumoperitoneum in the form of a doctoral dissertation, and his results were published as a separate monograph.

I. A. Shaklein is the author of 32 published works dealing with the clinic of early forms of tuberculosis, as well as with processes of healing, complex methods of treating tuberculosis, and problems of organizing the struggle against tuberculosis.

Under the leadership of I. A. Shaklein, the Sverdlovsk Tuberculosis Institute grew into a large scientific

organization. The Institute renders great organizational-methodological assistance to the tuberculosis organizations of the Urals and is successfully adapting the achievements of Soviet science to the realm of practice. I. A. Shaklein has also done much work in preparing cadres of phthisiologists.

Since 1933, he has combined his position as director of the Sverdlovsk Institute of Tuberculosis with his work as an assistant of the chair of faculty therapy of the Sverdlovsk Medical Institute; in 1937 he began to give a docent course on tuberculosis; and in 1954 he became head of the chair of tuberculosis.

During the period of the Great Patriotic War, I. A. Shaklein headed the Sverdlovskaya Oblast division of public health. Under his leadership, the organs of public health conducted a vast amount of work in protecting the interior sections of our country from epidemic outbreaks, in organizing medical-sanitary units at industrial enterprises of the oblast and in expanding medical service to the workers. During this period, there was a marked growth and strengthening of the network of antituberculosis institutions of the oblast.

I. A. Shaklein is an active participant in public life. He is the deputy chairman of the All-Russian Soviet of Phthisiologists, the chairman of the Sverdlovsk Society of Phthisiologists and a member of the editorial board of the journal "Problemy Tuberkuleza." He has frequently been elected a deputy of the Sverdlovsk city soviet; he is chairman of the standing commission of public health under the soviet and a member of the Kirovskiy Rayon Party Committee of Sverdlovsk.

The State has high regard for I. A. Shaklein's work; he has been awarded two Orders of Labor Red Banner various medals, and the "Distinguished Worker of Public Health" badge.

The editorial board of "Problemy tuberkuleza," as well as his working comrades, and students wish Ivan Alekseyevich good health and further progress in his work.

### The 50th Birthday of Anatoliy Anatol'yevich Voytkevich

25 October 1958 marked Professor Anatoliy Anatol'yevich Voytkevich's 50th birthday and the 25th anniversary of his pedagogic, scientific, and public activity. Professor Voytkevich is head of the chair of histology and embryology of Voronezh Medical Institute, a distinguished worker of science and a doctor of biological sciences. Born in Leningrad, Professor Voytkevich came from primary school teacher. After graduating high school in 1926, he entered the physico-mathematical faculty of Leningrad University. But after two months, he joined the march of culture to the farms at the call of the Young Communist League. As a teacher and Young Communist, he was directed to the village of Klenozero in Oshtinskiy Rayon, Lodeynopol'skiy Okrug, Leningradskaya Oblast, where he worked for two years. Under these new conditions, an interest in natural sciences was aroused in him, and in 1928 A. A. Voytkevich entered the biological division of the Second Moscow University. After graduating from this higher educational institution, he remained as a graduate student in the Laboratory of Endocrine Development Factors in the Institute of Experimental Morphogenesis of Moscow University imeni M. V. Lomonosov. After defending his candidatorial dissertation, he enrolled as a senior scientific co-worker at the Institute and remained in that capacity until 1939. In December 1935 he began his doctoral work in the Institute of Evolutionary Morphology of the Acad. Sci. USSR imeni A. N. Severtsov. In the following years, he was repeatedly assigned for considerable periods of time to the biological station imeni I. P. Pavlov of the All-Union Institute of Experimental Medicine in Koltushi. There he carried out various experimental investigations. In 1939, A. A. Voytkevich successfully defended his dissertation before the academic council of the Physiological Institute imeni I. P. Pavlov of the Acad. Sci. USSR. In the same year, he was granted the academic degree of doctor of biological sciences. He remained as a senior scientific worker at the Institute of Evolutionary Morphology until the middle of 1940; at that time he was chosen on a competitive basis, for the position of head of the chair of general biology of Kursk Medical Institute; in the same year, he was awarded the academic title of professor. After the evacuation of Kursk Medical Institute to Alma-Ata. A. A. Voytkevich became head of the chair of general biology of Kazakh Medical Institute. A. A. Voytkevich continued his work in Kazakhstan until June 1954 when he was selected as head of the chair of histology

and embryology of Voronezh Medical Institute.

A. A. Voytkevich had already begun his scientific work in his student years; during the period he published his first three experimental works. These works dealt with histofunctional changes in the microscopic structure of the thyroid gland which occur under the influence of the hormone of the hypophysis. In later investigations, he combined the evaluation of the changes of the microstructure of endocrine organs with the index of testing of the glandular tissue to determine the hormonal content. Thus, his candidatorial dissertation on the subject "Some Regularities of the development of the Thyroidin Apparatus in the Highest Vertebrates," established the histological criteria for the evaluation of the activity of the thyroid gland at different ages, in different phases of the development of the function of the gland, and under different experimental conditions. In this work, as well as in subsequent works, a direct correlation was established between the physiological state of the gland and certain histological symptoms. He established that the intensity of the function of the gland in the organism is directly related to the height of the cells of the thyroidin epithelium and inversely related to the amount of colloid deposited in the follicles. In testing the thyroidin tissue for biological objects, the criteria of its activity were inversely related to the level of the functions of the gland in the organism. This rule does not apply to the non-differentiated thyroid glands of the embryo; nor does it apply to the glands which were artificially brought to a state of functional exhaustion. At the same time, a study was made of the relation between the regularities in the development of the endocrine organs and the peculiarities of the ontogenesis and ecology of the animals of the taxonomic groups. A weak differentiation of the histological structure of the thyroid gland and of the hypophysis in premature mammals and birds exists at the moment of their appearance in the world, in accordance with the systems of these animals. During the same period, a procedure was developed for the biological testing of the glandular tissues of both the thyroid gland and the hypophysis in the larvae of anurous amphibians. Moreover, objective mathematical criteria were established for taking the intensity of the metamorphogenic reactions into account. To this end, the large number of experiments and observations carried out on the natural metamorphosis of different types of amphibians were performed with a view to the differentiation of their thyroid glands under different ecological conditions.



During the period between 1936 and 1952, a study was made of the cytological peculiarities of different zones in the anterior lobe of the hypophysis of various animals and of man; in particular, studies were made of the nature of the localization of the two basic types of chromophilic cells. It was shown that the initial basic hormonal formation, which is related to two interrelated aspects of the development of the organism. The initial hormonal formation in the oxyphilic cells is related to the growth processes, and the hormonal inception of the basophilic cells is related to the control of the differentiation processes -- is directly connected with the two basic secretory cells of the anterior lobe of the hypophysis. A. A. Voytkevich holds to the picture of the multi-hormonality of each of the two basic types of secretory cells of the anterior lobe of the hypophysis, with subsequent modification of the original hormone products in the circulation system of the organism. The qualitative changes occurring with age in the properties of that hormone of the anterior lobe of the hypophysis which activates the gonads have been revealed by the parallel employment of different methods of biological testing. These data were presented in reports by A. A. Voytkevich at sessions of the All-Union Congress of Physiology -- held, respectively, in Tbilisi (1937), in Moscow (1947), in Kiev (1955).

The wide utilization of thyroidectomy, particularly during the period of the experimental work in Koltushi, made it possible to establish -- for a large number of different types -- differences in the neuro-hormonal influences on the general development of the organism, on the differentiation of the Tegmina, and on physiological regeneration. At the same time, differences in type were shown in the changes occurring with age in both the histological structure and the hormonal content of the glands of internal secretion. These data constitute the main contents of the doctoral dissertation.

A. A. Voytkevich has shown that unusually prolonged temperature effects and substantial variations in typical light conditions cause peculiar changes in the microscopic structure of the thyroid gland and in the anterior portions of the hypophysis and thyroid gland. Such data could not be fitted into the framework of the old picture of the purely humoral interrelationships between the glands of internal secretion; they constitute proof of the influence of the highest branches of the nervous system in regulating the function of both the thyroid gland and the hypophysis; this influence was further demonstrated in later work on the subject.

Since 1945 A. A. Voytkevich and his co-workers have engaged in studying the influence of the sulfanilamides and thioureaes on the microstructure of the hypophysis and the thyroid gland. The action of these anti-thyroid substances varies as a function of the type peculiarities of the neuro-endocrine control, the stages of ontogenesis, and the physiological states in relation to the conditions of the medium. In this series of works, the suppressing action of the indicated substances on the function of the thyroid gland was shown, as well as the elements of the macrophage system; this is undoubtedly of general medical interest in connection with the wide utilization of sulfanilamides in the treatment of many diseases. This type of data indicates that care is required on the part of the physician in prescribing large doses of sulfanilamides. These data also provide an additional basis for the explanation of certain forms of sulfamidoresistance. The basic investigations in this field are outlined in two thematic collections and in A. A. Voytkevich's monograph on the "Antithyroid Action of Sulfanilamides and Thioureaes," published in 1957 by the Medical Publishing House.

During the past decade, A. A. Voytkevich and his co-workers have conducted many investigations of the peculiarities of the regeneration of different tissues and endocrine organs under the action of various hormones, as well under the influence of X-ray radiation. Part of these data was presented in eight reports of the staff of the chair of histology of the Voronezh Medical Institute; these reports were a part of the program of the most recent, 6th All-Union Congress of Anatomists, Histologists, and Embryologists in Kiev.

The rarely encountered phenomenon, of narrowly localized disturbances of form formations in the frog is of great interest; it was detected by A. A. Voytkevich under natural conditions in the foothills of Zamliysk Alma-Tau, and it appeared annually for 11 years. The unilateral super-complex development of the rear extremities, with different morphological variations is characteristic of this phenomenon. A. A. Voytkevich has traced the development and regeneration of additional extremities; he has disclosed the absence of efferent innervation in the duplicate extremities and he has studied the peculiarities of their tissue structures. The basic data were published in the journal "Arkhiy anatomi, gistologi, i embriologii (Archives of anatomy, histology, and embryology), and "Doklay AN SSSR" (Reports of the Acad Sci USSR). We also wish to mention that three



embryological works were written by A. A. Voytkevich and his co-workers on the vegetative heredity of the changed form formation and its repeated reproduction in the process of reparative regeneration. These works were summarized in a report delivered at the 5th All-Union Congress of Anatomists, Histologists, and Embryologists (1949).

During the period of his research activity, Professor A. A. Voytkevich published 224 works. Much of his published work, as pointed out above, deals with the histophysiology of the endocrine glands. The data of many of his experimental works are available in modern resumes and textbooks on endocrinology. One doctoral dissertation and ten condidatorial dissertations were completed under his guidance. Professor A. A. Voytkevich's students have become heads of chairs in the medical institutes of Aktyubinsk, Kalinin, and Kishinev; others have become instructors in the medical institutes of Alma-Ata, Kursk, Karaganda, Semipalatinsk, and other cities. A. A. Voytkevich is the author of various papers on problems of teaching procedure and of scientific work.

Professor A. A. Voytkevich is an erudite teacher and lecturer. His lectures always attract a large student audience, because of the clarity of his presentation and demonstration of the material. His research work has not been bounded by the limits of the chair of histology; in the study of various problems his research work has been complemented by the work of other theoretical and clinical chairs. An organized circle of science students on functions in connection with the chair of histology; the members of this circle perform independent experimental work. Many former active members are now among the best workers and instructors in higher educational institutions.

A. A. Voytkevich was accepted in to the Communist Party in 1942. He has been repeatedly elected a member of the Party bureau of the medical institute, as well as secretary of its Party organization. For several years, he also served as the deputy director of the scientific and instructional section of Voronezh Medical Institute.

Professor A. A. Voytkevich is chairman of the Voronezh Medical Section of the All-Union Society for the Dissemination of Political and Scientific Knowledge. Because of his position on the staff of Voronezh Medical Institute, A. A. Voytkevich enjoys the respect and authority which he richly deserves. The State has awarded him the order of "Badge of Honor" and the medal "For Excellent Service During the Great Patriotic War." In 1947, the Presidium of the

Supreme Soviet Kazakh SSR awarded him the honorary title of "Distinguished Scientific Worker."

Our wish for Professor A. A. Voytkovich is that he may labor in the field of science and transmit his experience and knowledge to our youth with the same persistence and determination as in previous years. We wish the celebrant health, many years of creative life, and further research progress in our common task of developing a progressive Soviet science.

V. V. Alyakritskiy (Voronezh)  
L. I. Falin (Moscow)

The 70th Birthday and 42nd Anniversary of Scientific  
Activities of Mariya Alekseyevna Zakhar'yevskaya

4 August 1959 marked the 70th birthday and the 42nd anniversary of the scientific and public activity of a great Soviet pathologico-anatomist, Professor Mariya Alekseyevna Zakhar'yevskaya, doctor of medical Sciences, head of the chair of pathological anatomy of the First Leningrad Medical Institute.

In 1910, after graduating from the gymnasium in Kazan, Mariya Alekseyevna enrolled in the Saint Petersburg Womens' Medical Institute, now the First Leningrad Medical Institute imeni academician I. P. Pavlov. She graduated from the Institute with distinction in 1916.

From 1917 through 1933, Mariya Alekseyevna worked as an assistant in the chair of pathological anatomy, headed by Professor G. V. Shor of the First Leningrad Medical Institute. In 1932, she transferred to the division of pathological anatomy of the Roentgenological Institute of Experimental Medicine, headed by academician N. N. Anichkov. In 1939, she returned to the chair of pathological anatomy of the First Leningrad Medical Institute. In 1935, Mariya Alekseyevna was granted the academic degree of candidate of medical sciences, and, in 1941, after defending a dissertation, she was awarded the degree of doctor of medical sciences.

From 1939 until the present, Mariya Alekseyevna has worked in the chair of pathological anatomy of the First Leningrad Medical Institute. At first, she occupied the position of docent; subsequently, she became a professor and head of the chair.

Simultaneously with her pedagogic and scientific activity, Mariya Alekseyevna has undertaken important work as a prosector in various Leningrad hospitals, where she trained [others to become] highly qualified prosectors.

In the years of the Great Patriotic War, Mariya Alekseyevna worked in Leningrad during the blockade. In her capacity as a prosector, she exhibited genuine enthusiasm in arranging for uninterrupted work during the blockade, and she engaged in investigation of the peculiarities of war-time pathology.

During the difficult years of the blockade of Leningrad, Mariya Alekseyevna was academic secretary of the council of Leningrad Medical Institute. Without considering her own health, which had deteriorated in connection with the difficult conditions of the blockade, she devoted much effort to organizing the tasks assigned to her.

The scientific work of Mariya Alekseyevna is distinguished by its diversity and breadth. The majority of her completed works deal with problems of hypertension and atherosclerosis. She is the author of a long monograph on vascular nephrosclerosis and of a work on the staining properties of proteins in atherosclerosis. At the present time Mariya Alekseyevna is one of the greatest specialists on Kidney pathology. In addition, Mariya Alekseyevna has studied the inflammatoric growth of the epithelium and the processes of autogenic infection in the bile-draining and respiratory passages.

Mariya Alekseyevna is the author of 42 scientific works. During the last six years, the chair which she heads has issued 50 scientific works, including dissertations for the academic degrees of doctor and candidate of medical sciences.

Mariya Alekseyevna is greatly respected by clinicians for her excellent qualifications, her broad experience as a prosector, and her advanced clinico-anatomical approach.

Mariya Alekseyevna is a regular consultant on the scientific work of many co-workers of clinical chairs and pathologico-anatomists of the periphery; she is an active participant in medical-control commissions and clinico-anatomical conferences of hospitals and therapeutic clinics.

Mariya Alekseyevna is one of the oldest members of the Leningrad Society of Pathologico-anatomists. She has been elected a member of the administration of the Society for many years she has always participated actively in the discussion of reports and demonstrations from prosector practice, and she has given young pathologico-anatomists the benefit of her experience and knowledge.

An energetic investigator and an erudite teacher, Mariya Alekseyevna deserves the love and respect accorded her by students, co-workers in the chair, and by the Institute. She is enthusiastic in the helpful advice she gives to the alumni of the Institute who are working in the periphery, and she remains in constant touch with them.

The State has awarded Mariya Alekseyevna the Order of Lenin and two medals in recognition of her many years of selfless work.

The name of Mariya Alekseyevna is inscribed in the book of honor of the First Leningrad Medical Institute.

The staff of the chair of pathological anatomy of the First Leningrad Medical Institute heartily congratulates Mariya Alekseyevna on her 70th birthday and sincerely wishes her health and many years of fruitful scientific work for

the benefit of our Motherland. Co-workers of the Chair of Pathological Anatomy of the First Leningrad Medical Institute.

The board of the All-Union Society of Pathologico-anatomists and the editors of the journal "Arkhiy Patologii" congratulate the highly respected Mariya Alekseyevna Zakhar'yevskaya on her glorious anniversary and with her good health, many years of life, and further creative progress.

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